
Product Data Sheet

Product Name: APOE4 Human
 Cat. No.: GP20058
 Batch No.: 1

Product Data

Purity	>98%	Source	Escherichia Coli.
Physical Appearance	solid	Shipping Condition	Shipped at Room temp.
Synonyms	Apolipoprotein E; APO-E; Alzheimer Disease 2 (APOE*E4-Associated; Late Onset); Apolipoprotein E3; LDLQC5; LPG; AD2; APOE.		
Amino Acid Sequence	<p>MHHHHHHKVE QAVETEPEPE LRQQTEWQSG QRWELALGRF WDYLRWVQTL SEQVQEELLS SQVTQELRAL MDETMKELKA YKSELEEQLT PVAEETRARL SKELQAAQAR LGADMEDVRG RLVQYRGEVQ AMLGQSTEEL RVRLASHLRK LRKRLLRDAD DLQKRLAVYQ AGAREGAERG LSAIRERLGP LVEQGRVRAA TVGSLAGQPL QERAQAWGER LRARMEEMGS RTRDRLDEVK EQVAEVRACL EEQAQQIRLQ AEAFAQRLKS WFEPLVEDMQ RQWAGLVEKV QAAVGTSAAP VPSDNH.</p>		
Solubility	It is recommended to reconstitute the lyophilized APOE4 in sterile 18M-cm H2O not less than 100µg/ml, which can then be further diluted to other aqueous solutions.		
Formulation	Lyophilized from a sterile (0.2µm) filtered aqueous solution containing 10mM sodium phosphate, pH 7.5.		

Introduction

Apolipoprotein E (APOE) is a chylomicron lipoprotein which is essential for the metabolism of lipoproteins and lipid transport. The APOE gene has 3 alleles, designated APOE2, APOE3, and APOE4. The APOE allelic proteins differ by only one or two amino acids, however have different biological structures and functions. APOE3 is the most common and neutral allele. The APOE4 allele is linked with an increased risk for Alzheimer's Disease (AD) and coronary artery disease (CAD). The APOE4 protein morphology decreases the ability of APOE4 to clear beta-amyloid protein from the brain, resulting in AD progression. The APOE2 allele is linked with type III hyperlipoproteinemia, which is characterized by defects in the clearance of plasma lipoproteins, however

Caution: Product has not been fully validated for medical applications. For research use only.

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA

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APOE2 may have a protective effect against AD.

Stability

Lyophilized APOE4 although stable at room temperature for 3 weeks, should be stored desiccated below -18°C . Upon reconstitution APOE4 should be stored at 4°C between 2-7 days and for future use below -18°C . For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

Background

Apolipoprotein E4 Human Recombinant produced in E.coli is a single, non-glycosylated polypeptide chain containing a total of 306 amino acids including a His Tag at N-terminus and having a molecular mass of 35.2kDa. The Accession # is P02649 VAR_000652.

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